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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,527	04/15/2005	Jianming Xu	139360USPCT	9098

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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,527	<b>Applicant(s)</b> XU ET AL.	
	<b>Examiner</b> Joy K. Contee	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Britt et al. (Britt), U.S. Patent No. 6,226,517.

Regarding claim 1, Britt discloses a method for minimizing call setup delay for a call in a communication network, wherein the communication network includes a central node connected to a number portability database, the method comprising: triggering a first query to the central node for information for routing the call when a request for setting up the call is received by a switching unit; triggering a second query from the central node to a home location register for the routing information in order to set up the call; and triggering a third query from the central node to the number portability database for the routing information if the second query fails to provide the routing information (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 2, Britt discloses the method of claim 1 further comprising selecting the home location register from a first table accessible to the central node, wherein the home location register is selected based on a mobile station ISDN and a state of a flag (col. 3,lines 20-43).

Regarding claim 3, Britt discloses the method of claim 1 further comprising searching a second table for a location routing number before triggering the second query, wherein the second query is only triggered if the location routing number is not found in the second table (col. 3,lines 20-43).

Regarding claim 4, Britt discloses the method of claim 1 wherein the home location register has a number portability mapping database for mapping ported numbers, wherein each mobile phone known to the home location register is identifiable by its mobile station ISDN number, and wherein triggering the second query includes searching number portability mapping database for a mobile station ISDN number associated with the call (col. 1,line 49- col. 2,line 19 and line 41 – col. 3,line 42).

Regarding claim 5, Britt discloses the method of claim 1 wherein the call is made from one wireless communication network to another (col. 1,line 49- col. 2,line 19 and line 41 – col. 3,line 42).

Regarding claim 6, Britt discloses the method of claim 5 wherein the two wireless communication networks use different technologies (col. 1,line 49- col. 2,line 19 and line 41 – col. 3,line 42).

Regarding claim 7, Britt discloses a method for minimizing call setup delay in a telecommunications network wherein the network includes first and second tables, wherein the first table contains a plurality of identifiers and an associated location routing number (LRN) for each identifier, and the second table contains a plurality of identifiers and an associated home location register (HLR) for each identifier, the method comprising: determining whether an identifier associated with a mobile device is listed in the first table; sending a query to a network node corresponding to the LRN associated with the identifier if the identifier is listed in the first table; determining whether the identifier is listed in the second table if the identifier is not listed in the first table; and sending a query to the HLR associated with the identifier if the identifier is listed in the second table (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 8, Britt discloses the method of claim 7 further comprising sending a query to a number portability database if the identifier is not listed in the second table (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 9, Britt discloses the method of claim 8 further comprising: if the number portability database does not recognize the identifier, generating an error message; and if the number portability database does recognize the identifier, sending a query to a network entity corresponding to an LRN identified by the number portability database (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 10. The method of claim 9 further comprising, if the network entity recognizes the identifier, inserting a new entry into the first table, wherein the new entry includes the identifier and the associated LRN identified by the number portability database (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 11, Britt discloses the method of claim 7 further comprising identifying the HLR associated with the identifier, wherein the HLR is differentiated in the second table from another HLR by means of a flag (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 12, Britt discloses the method of claim 11 further comprising, if the queried HLR indicates that the identifier is not known, setting the flag to indicate that the HLR does not recognize the identifier (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 13, Britt discloses the method of claim 12 further comprising: sending a query to at least one other HLR; and if the other HLR recognizes the identifier, setting a flag in the second table to indicate that the other HLR recognizes the identifier (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 14, Britt discloses the method of claim 11 further comprising, if the queried HLR indicates that the identifier is not known, sending a query to a number portability database (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

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Regarding claim 15, Britt discloses the method of claim 11 further comprising, if the queried HLR indicates that the identifier is known, continuing with a predefined call setup procedure (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 16, Britt discloses the method of claim 7 further comprising: determining if the network node corresponding to the LRN recognizes the identifier; deleting the identifier from the first table if the network node does not recognize the identifier; and continuing with a predefined call setup procedure if the network node recognizes the identifier (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 17, Britt discloses the method of claim 16 further comprising, if the network node does not recognize the identifier, determining whether the identifier is listed in the second table (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 18, Britt discloses the method of claim 17 further comprising: sending a query to the HLR associated with the identifier if the identifier is listed in the second table; and sending a query to a number portability database if the identifier is not listed in the second table (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 19, Britt discloses a telecommunications system adapted for minimizing call setup delay for a call associated with a first mobile station identifier, the system comprising: a plurality of home location registers (HLRs); a central node in communication with the HLRs; a first table accessible to the

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central node, wherein the first table contains a plurality of mobile station identifiers and associated location routing numbers; a second table accessible to the central node, wherein the second table contains a plurality of mobile station identifiers, wherein each identifier is associated with one of the HLRs; and instructions adapted for execution by the central node, the instructions including: instructions for searching the first table for a second mobile station identifier that matches the first mobile station identifier and sending a query to a network entity identified by the associated location routing number if a match is found; and instructions for searching the second table for a second mobile station identifier that matches the first mobile station identifier and sending a query to the associated HLR if a match is found (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

Regarding claim 20, Britt discloses the telecommunications system of claim 19 further comprising a number portability database (NPDB) connected to the central node, and instructions for querying the NPDB if no match is found after searching of the first and second tables.

Regarding claim 21, Britt discloses the telecommunications system of claim 19 further comprising a network switch in communication with the central node, wherein the network switch is adapted for querying the central node for routing information when the switch receives a request to set up the call.

Regarding claim 22, Britt discloses the telecommunications system of claim 19 wherein at least some of the plurality of HLRs are based on different technologies.



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Regarding claim 23, Britt discloses the telecommunications system of claim 19 wherein the instructions further include instructions for receiving and sending messages based on different technologies (col. 1, line 49- col. 2, line 19 and line 41 – col. 3, line 42).

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rathnasabapathy et al. US 6574481 & US PG Pub No. 2003/0199281, both disclose a system and method for application location register routing in a telecommunications network.

Hallenstal et al. US PG Pub. No. 2005/0261021, discloses a system and method for providing telecommunications services.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

  
**JAY K. CONTEE**  
**PATENT EXAMINER**